

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-0004-00(917) Liberty **OFFICE:** Engineering Services
P.I. No.: 0004917
SR 119/Airport Road from US 84 to SR 196 **DATE:** January 19, 2010

FROM: Ronald E. Wishon, Project Review Engineer *REW*

TO: Brad Saxon, PE, District Pre-Construction Engineer - Jesup

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES


The VE Study for the above project was held September 28 – October 1, 2009. Responses were received on November 17, 2009. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
RD-1	Construct a five lane section	\$830,099	No	Future development for 6500 residential units and 1.8 million sf of commercial/retail space has been approved for this area. Growth is expected to continue, and traffic projections are expected to increase over 24,000 vpd. The County's current transportation plan includes the design and construction of projects to eliminate five lane sections by installing medians.
RD-2	Use 12 ft outside, 11 ft inside travel lanes	\$269,401	Yes	This will be done.
RD-3	Use 20 ft raised median in lieu of 24 ft raised median	\$144,935	Yes	This will be done.
RD-4	Use a 5 ft sidewalk in lieu of a 6 ft sidewalk on the east side of the project	\$99,545	Yes	This will be done.
RD-7	Modify alignment from Sta. 199+00 to Sta. 210+00 to reduce residential displacements	\$1,342,241	Yes	This will be done.

RD-11	Re-align Hardman Road	Design Suggestion	No	Realigning Hardman Road to an angle closer to 90 degrees would add additional pavement to both sides of the roadway. The plans maintain the existing angle of intersection for Hardman Road, and that angle meets GDOT design requirements for the intersections. Shaw Road would continue to require realignment to provide full access to the intersection if Hardman Road was realigned.
RD-14	Provide access to airport	Design Suggestion	No	The existing airport will not be in use at the time this project will be constructed. There is no need to provide access.
RD-15	Outfall the individual inlets in wetland areas	\$72,178	No	Many of the existing crossings are placed in areas that contain sumps that spill over into the wetlands when full. The outfalls have been placed in the areas closest to the low point of the sumps. By allowing each pipe to outfall at an individual location, it would be necessary to ditch through the wetlands to obtain grades to provide positive drainage. As a result, this would create further adverse impacts to the wetlands.

Additional information was provided on December 15, 2009 and January 19, 2010.

The results above reflect the consensus of those in attendance and those who provided input.

Approved:  Date: 1/20/10
Gerald M. Ross, PE, Chief Engineer

REW/LLM

Attachments

c: Ben Buchan
Bobby Hilliard/Mike Haithecock/Matt Bennett
Dennis Odom/Keith Stewart
Will Murphy/Bryan Czech/Brian Ray
Nabil Raad
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE	STP00-0004-00(917) Liberty County Widening SR119/Airport Road fm US84 to SR196 P. I. No. 0004917	OFFICE	Jesup, Design
		DATE	1/19/2010
FROM	Matt Bennett, Project Manager		
TO	Ronald E. Wishon, State Project Review Engineer Attn: Lisa Myers		
SUBJECT	Value Engineering Study Responses		

Reference is made to the recommendations that were contained in the Value Engineering Study Final Report dated October 16, 2009 for the above referenced project. Our responses are as follows:

Recommendations:

1. Idea RD-1; Construct a 5 lane section

The original design calls for construction of a four lane facility divided by a 24' raised earthen median.

This recommendation would replace the original design footprint of the roadway with a five lane flush median section throughout the project. This would allow the existing pavement to be overlaid in areas of alignment shifts and other areas that would be removed due to the construction of the raised median. In addition, this section also reduces the overall footprint of the roadway by 10' in comparison to the divided section.

The total potential savings if accepted is \$830,099.00.

➤ **VE Recommendation RD-1 is not accepted.**

Access control: Originally, future estimates of population and land uses were made in coordination with the Liberty County Consolidated Planning Commission, Fort Stewart representatives, and GDOT officials. Based on reports provided by these representatives, growth is expected to continue despite information that the current White House Administration has lessened the anticipated Fort Stewart troop activities that were originally planned. There are several new developments in various stages of design and construction that will impact the projected traffic throughout the corridor, including a school along the edge of the Fort Stewart property and multiple residential and commercial units along the roadway. With these developments, the current projections are expected to increase from its original projections to over 24,000 vehicles per day. One of the developments in the area is 2,690 acres Independence development. This development is

currently approved for over 6500 residential units (single-family and multi-family) and 1.8 million square feet of commercial/retail space. Much of this traffic will utilize 15th street and travel down SR 119 to access US 84. As the population continues to grow (expected to double in this area by 2030), it is expected that the projected traffic totals will exceed the totals required by GDOT to safely maintain a five-lane section. Based on this information, Liberty County has stated that their current transportation plan includes the design and construction of projects to remove five lane sections by installing raised medians throughout the County limits.

2. Idea RD-2; Use 12' for outside lane and 11' for the inside lane

The original design calls for the construction of 2-12' lanes NB as well as SB.

The alternative proposes to construct a 12' outside lane, and an 11' inside lane on both NB and SB lanes throughout the project.

The total potential savings if accepted is \$269,401.

➤ VE Recommendation RD-2 is accepted.

3. Idea RD-3; Use a 20' raised median vs. 24' raised median

The current plan consists of a four lane highway divided by a 24' raised median throughout the corridor of the project.

This recommendation reduces the overall width of the median to 20' or by 2' per side for the length of the project. This change would provide a minor deduction earthwork totals for the project.

The total potential savings if accepted is \$144,935.

➤ VE Recommendation RD-3 is accepted.

4. Idea RD-4; Use a 5' sidewalk in-lieu of a 6'

The current plans provide a 6' sidewalk on the east side of the road throughout the corridor.

This recommendation would reduce the width of the sidewalk on the east side by 1' to a total width of 5' for the length of the project. This change would reduce the cost of sidewalk quantities as well as cause a reduction in right-of-way costs.

The total potential savings if accepted is \$99,545.

➤ VE Recommendation RD-4 is accepted.

5. Idea RD-7; Modify alignment from Sta. 199 +/- to Sta. 210 +/- to reduce residential relocations

The current plans require right-of-way from parcels along the west side of the roadway in this area. The current plan has multiple properties that will be impacted by the road widening. The result of the required right-of-way may result in proximity displacements along this area. The east side of the roadway is less developed; however, more wetlands are along this portion.

This recommendation would allow the existing pavement to be overlaid for the two SB lanes of traffic and the construction of the median and the NB lanes to occur to the east. This could increase impacts to the wetlands; however, wetlands in the area are not considered pristine.

The total potential savings if accepted is \$1,342,241.

➤ **VE Recommendation RD-7 is accepted.**

Please note that this may have an adverse affect to the project schedule.

6. Idea RD-15; Outfall individual inlets in wetland areas

The current plans show numerous piped drainage systems that outfall into wetlands at culvert pipe crossing along the project. Pipe systems in the current plan will outfall at sumps near the existing pipe crossings within wetlands.

This recommendation would reduce the amount of pipe required by allowing each inlet in wetland areas to outfall at that location instead of at an existing crossing. The length of pipe required, as well as the size of pipes used in these areas, would be minimized as a result of this change.

The total potential savings if accepted is \$72,178.

➤ **VE Recommendation RD-15 is not accepted.**

Due to grade conflict with the existing wetlands, it may not be possible to outfall at each inlet. Many of the existing crossings are placed in areas that contain sumps that after filling will spill over into the wetlands. The outfall of the road drainage has been placed in areas closest to the low point of the sump that would be necessary to drain the existing wetland crossings. By allowing each pipe to outfall at an individual location, it would be necessary to ditch through the wetlands to get the grades of the drainage structures to properly work out. As a result, this would cause further impact to the existing wetlands.

Design Considerations:

1. Idea RD-11; Re-align Hardman Road

The current plan realigns Shaw Road with Hardman Road to create a four way intersection that will be signalized with the project. The plan maintains the existing angle of

intersection for Hardman Road which meets GDOT design requirements for the intersection. The angle is extended across State Route 119 and Shaw Road is realigned, using reverse curves designed for 25 mph, to tie into existing Hardman Road.

➤ **VE Design Considerations RD-11 is not accepted.**

Hardman Road maintains its current location and Shaw Road is realigned to provide full access within the intersection. The existing location of Shaw Road could not be maintained, as realigning Hardman Road to meet this location would cause a displacement at a commercial building located next to Hardman Road. Realigning Hardman Road to an angle closer to 90 degrees would add additional pavement to both sides of the roadway as Shaw Road would still require realignment to provide full access at the intersection due to the raised median to be constructed as a part of this project.

2. Idea RD-14; Provide access to airport

The current plan shows the urban shoulder to continue through the existing airport access road at the beginning of the project. This does not provide a curb cut or any access to the existing airport.

➤ **VE Design Considerations RD-14 is not accepted.**

The existing airport at this location is not and will not be in use at the time of the construction for this project. Liberty County has mentioned the possibility of a trucking school being located in the area although this plan has not been finalized.

If there are any further questions or if any additional information is needed, please contact the Project Manager, Matt Bennett at (912) 271-7404 or e-mail at mabennett@dot.ga.gov.

BH:MAH:JMB

c:

Lisa Myers
General File Unit, Atlanta
Jesup Files
Project Files

PLAN AND PROFILE OF PROPOSED
STATE ROUTE 119 WIDENING FROM
INTERSECTION OF US 84 TO SR 196

FEDERAL AID PROJECT
LIBERTY COUNTY NO. 179
STP00-0004-00 (9/17)

FEDERAL ROUTE • NONE
STATE ROUTE • SR 119
P.I. NO. 0004917

NOTE: ALL REFERENCES IN THIS DOCUMENT WHICH INCLUDES ALL PHOTOGRAPHIC, DOCUMENTS, DRAWINGS OR PHOTOGRAPHS USED TO BE USED IN CONNECTION WITH THIS DOCUMENT TO STATE HIGHWAY DEPARTMENT OF GEORGIA STATE HIGHWAY DEPARTMENT GEORGIA STATE HIGHWAY DEPARTMENT STATE HIGHWAY DEPARTMENT FOR "DEPARTMENT" WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

DESIGN DATA:
TRAFFIC A.D.T.: 9,100 (2006)
TRAFFIC A.D.T.: 20,900 (2036)
TRAFFIC D.V.T.:
DIRECTIONAL DIST. 60%:40%
% TRUCKS: 40%
24 HR. TRUCKS %: 5.0%
SPEED DESIGN: 45 MPH

LOCATION & DESIGN
APPROVAL DATE:

FUNCTIONAL CLASS:
MINDO LOGAN ADPTEIN

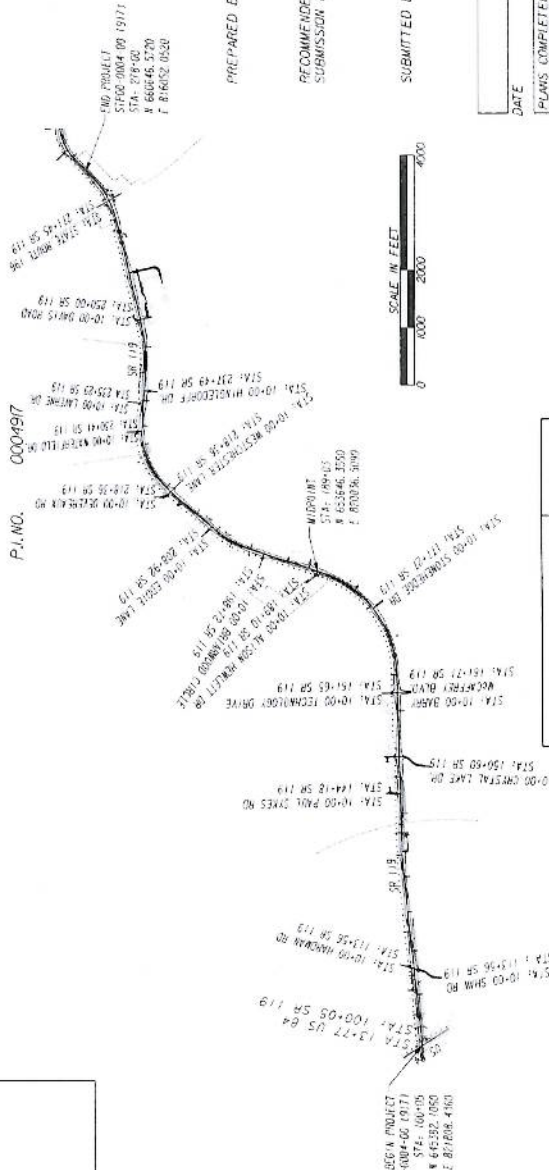
THIS PROJECT IS 100% IN

LIBERTY COUNTY AND IS
100% IN CONG. DIST. NO. 1.

GMD NO. 1459

PROJECT DESIGNATION: MAJOR
DESIGNED IN ENGLISH UNITS

THIS PROJECT HAS BEEN FINANCED
USING THE HORIZONTAL GEORGIA
COORDINATE SYSTEM OF 1984 AND
PROJ 1984 WEST ZONE, AND THE NORTH
AMERICAN VERTICAL DATUM (NAVD83).



SCALE IN FEET

PREPARED BY:

RECOMMENDED FOR
SUBMISSION BY:

SUBMITTED BY:

STAFF

DATE	CHIEF ENGINEER
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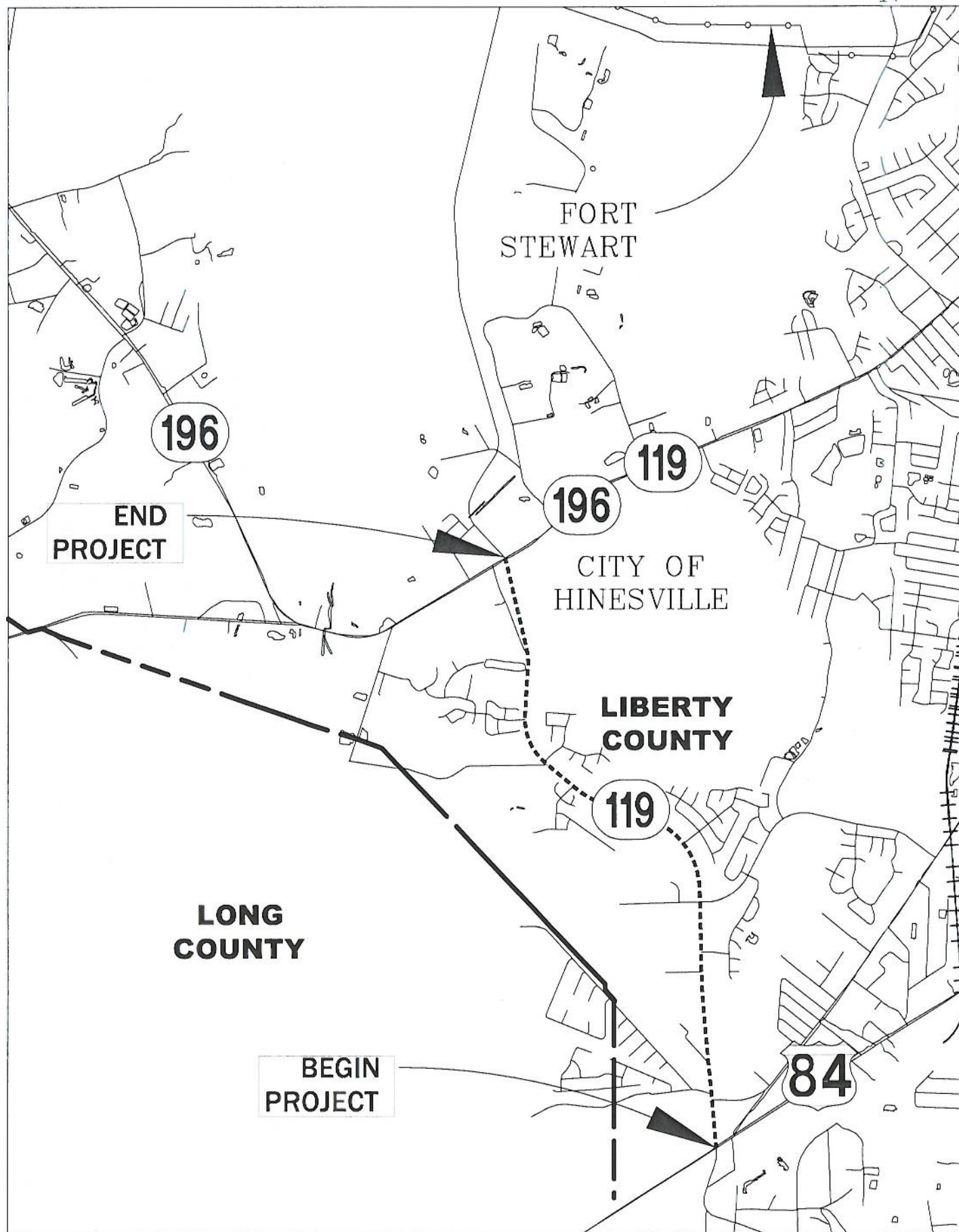
PLANS COMPLETED

LENGTH OF PROJECT	COUNTY, Mileage County Name County	MILE S
NET LENGTH OF ROADWAY		3,30000
NET LENGTH OF BRIDGES		0,00000
NET LENGTH OF PROJECT		3,30000
NET LENGTH OF EXCAVATIONS		0,00000
GROSS LENGTH OF PROJECT		3,30000

Theodore J. Hutton, Fort Lauderdale, FL



THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREIN, WHETHER BY DRAWINGS OR NOTICED, OR IN ANY OTHER MANNER, BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY



PROJECT MAP

PRECONSTRUCTION STATUS REPORT FOR PI:0004917

SR 119/AIRPORT ROAD FROM US 84 TO SR 196 IN HINESVILLE

MGMT LET DATE : 12/15/2012
MGMT ROW DATE : 12/10/2010
BASELINE LET DATE: 06/20/2012
SCHED LET DATE : 11/21/2012
WHO LETS? : GDOT Let
LET WITH :

PRIORITY CODE:
DOT DIST: 5
CONG. DIST: 1
BIKE: N
MEASURE: E
NEEDS SCORE: 05
BRIDGE SUFF:

MPO: Hinesville
TIP #: 2005-D-1
MODEL YR :
TYPE WORK: Widening
CONCEPT: WIDEN & RECONST
PROG TYPE: Reconstruction/Rehabilitation
Prov. for ITS: N
BOND PROJ :

PROJ ID : 0004917
COUNTY : Liberty
LENGTH (MI) : 3.30
PROJ NO.: STP00-0004-00(917)
PROJ MGR: Bennett, J. Matt
AOHD Initials: MAH
OFFICE : Program Delivery
CONSULTANT: Local Design, Local PE funds
SPONSOR : Liberty County
DESIGN FIRM: Thomas & Hutton Engineering Co.

BASE START	BASE FINISH	LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS							
								Activity	Approved	Proposed	Cost	Fund	Status	Date Auth	
10/16/2009				Concept Development	1/28/2005	1/31/2007	82	PE	2005	2005	90,000.00	Q20	AUTHORIZED	12/15/2004	
				Concept Meeting	6/16/2006	6/16/2006	100	ROW	2011	2011	10,486,368.08	L200	PRECST		
				PM Submit Concept Report	1/3/2007	1/3/2007	100	CST	2014	2014	16,353,321.11	L200	PRECST		
				Receive Preconstruction Concept Approval	1/17/2007	1/24/2007	100								
				Management Concept Approval Complete	1/24/2007	1/31/2007	100								
10/16/2009	10/12/2009			Value Engineering Study	2/6/2009	4/19/2007	64								
				Public Information Open House Held	4/19/2007	4/19/2007	100								
				Environmental Approval	8/14/2006		58								
				Public Hear Held/Com Resp (EA/FONSI, GEPA)	1/11/2008	1/31/2008	100								
				Mapping	1/4/2008	1/31/2008	100								
8/28/2009	10/22/2009			Field Surveys/SDE	9/27/2007	1/31/2008	100								
				Preliminary Plans	12/5/2006		98								
				Underground Storage Tanks			0	PE Cost Est Amt	90,000.00	Date: 1/31/2007	Cost	Activity	Fund		
				404 Permit Obtainment			0	ROW Cost Est Amt	8,000,000.00	Date: 1/31/2007	0.00	PE	Q20		
				PHPR Inspection	3/3/2009		86	CST Cost Est Amt	11,622,000.00	Date: 1/31/2007	6,039,000.00	ROW	L200		
3/16/2010	5/14/2010	8/17/2010		R/W Plans Preparation			0								
				R/W Plans Final Approval	9/24/2010		0								
				L & D Approval	11/17/2010		0								
				R/W Authorization	3/9/2011		0								
				Stake R/W	2/11/2010		0								
4/26/2010	5/23/2011	9/27/2010		Soil Survey	4/21/2008		67								
				Final Design			0								
				FFPR Inspection			0								
				Submit FFPR Responses (OES)			0								
District Comments								KRS/6-25-09/Cnslt. wking on Annual Cost est/Wking on Pre Plans SS/7-08-09/Arch working on cemetary delineationsWhen complete EA will go to OEL for forwarding to FHWA JMB 1/19/2010 - Ecology addendum rec'd on 1/14/2010 & forwarded to OEL.							
Prog. Develop: RW STIP AMENDMENT #44 5-07 Programming: #1 9-05/#2 8-09/#3 10-09 CHG LY20 TO L200 DUE TO LACK OF DEMO FUNDS 12-14-09 Traffic Op: AWAITING LOCAL PEPR PLANS FOR REVIEW Utility: 1st submissions to design Ready for PEPR. 2/10/09 EMG: RECST/REHAB (WIDENING); PE BY COUNTY								Acquired by: DOT Acquisition MGR: R/W Cert Date:						DEEDS CT:	